



DEPARTMENT OF THE NAVY

ENGINEERING FIELD ACTIVITY, NORTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
10 INDUSTRIAL HIGHWAY
MAIL STOP, #82
LESTER, PA 19113-2090

IN REPLY REFER TO

5090
Code EV23/CF
March 9, 2004

Mr. Paul Kulpa
Rhode Island Department of Environmental Management
Office of Waste Management
235 Promenade Street
Providence, RI 02908-5767

Dear Mr. Kulpa:

SUBJECT: PRE-DESIGN SOIL INVESTIGATION, OLD FIRE FIGHTING
TRAINING AREA, NAVAL STATION, NEWPORT, RHODE ISLAND

Thank-you for reviewing the draft work plan for the Soil Pre-design Investigation dated November 2003. The Navy's responses to your comments are provided as enclosure (1).

The comment letter states that the Navy provided the work plan to RIDEM on November 26, although records show that it was delivered to you November 7, under a letter from our contractor, Tetra Tech NUS, Inc. dated November 6. That correspondence indicated that the field effort was anticipated to begin on November 17, 2003.

As we have recently discussed, the pre-design investigation was completed as of December 12, 2003, well before your comments were received. We are providing responses to your comments for the record and will be presenting a summary report as soon as the data is compiled.

While the cover letter states that RIDEM does not feel the investigation is necessary, and that additional information is not warranted to determine extent of the upcoming removal action, the comments suggest greater detail is warranted on the individual tasks (additional samples, additional analyses, additional borings after mound removal, and deeper borings than scoped).

The Navy retains its commitment to conduct sound and responsible risk-based remedial activities in accordance with

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CERCLA. We look forward to continuing this work in partnership with the regulatory parties.

2/26/04 The Navy will continue to keep the EPA and RIDEM apprised of progress during the design and contracting process. If you have any questions regarding this material, please do not hesitate to contact me at (610) 595-0567 extension 142.

Sincerely,



CURTIS A. FRYE, P.E.
Remedial Project Manager
By direction of the
Commanding Officer

Enclosure: 1. Responses to Comments from RIDEM on the Work Plan
for Soil Pre-Design Investigation, Old Fire
Fighting Training Area, Naval Station Newport, RI

Copy to:

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RESPONSES TO COMMENTS FROM RIDEM
on th
WORK PLAN FOR SOIL PREDESIGN INVESTIGATION,
OLD FIRE FIGHTING TRAINING AREA
Comments Postmarked January 22, 2004

Cover Letter, General Comment:

To date, as part of three separate remedial investigation studies and a source removal evaluation study over one hundred and thirty surface and subsurface soil samples have been collected at the site. The current submittal calls for the collection of one hundred and forty additional samples to fine tune the proposed removal action. The Office of Waste Management questions the need for the proposed extensive sampling effort. Typically, the true nature and extent of contamination is uncovered during the removal action and in many cases the estimates obtained during the design study are found to be inaccurate. This has been the case for the removal actions performed at Naval Station Newport. As an illustration, both the horizontal and vertical extent of contamination found at the Melville North Landfill did not agree with the estimates produced for the several removal actions conducted at that site. This disagreement was even observed at locations where pre-excavation samples were taken.

Therefore, in consideration of the above, the Office of Waste Management recommends that the proposal be scaled back to a limited sampling effort. The monies saved by this course of action can be used for the remediation of the site and /or investigation of other sites.

Response: While this comment states that the investigation is unnecessary, and that additional information is not warranted to determine extent of the upcoming removal action, the later comments below suggest greater detail is warranted on the individual tasks (additional samples, additional analyses, additional borings after mound removal, and deeper borings than scoped).

The pre-design investigation is a necessary and logical step to better understand the nature of the subsurface conditions and to lay out the steps necessary to conduct the soil removal action. Conducting this investigation, properly budgeting the effort, then conducting a design of the excavation, is the only responsible course of action for this site. Additionally, since the soil removal will most likely be performed by a firm fixed price contract, as opposed to a cost-plus contract, it is all the more reason to conduct a pre-design investigation to guard against costly contract modifications after award due to unforeseen conditions.

1. General Comment

The Office of Waste Management disagrees with the need to conduct an extensive sampling effort at the site. Specifically, the studies performed to date have demonstrated that contamination exists at the site and these studies have delineated the general areas, which will require remediation. During the removal action the actual extent of contamination will be uncovered. Further, as part of this action, excavations or test pits will be dug beyond the area that is thought to be contaminated, in order to ensure that remedial objectives have been met. This has been found to be necessary, since in general, contaminant distribution is heterogeneous in nature and in many cases contamination has been found to extend beyond that delineated by the predesign studies.

Performing an extensive study, especially in the central portion of the site where free product is known to exist, is unlikely to change the course of the removal action in this area. Therefore it is recommended that the proposed effort be primarily limited to the western portion of the site and the Navy should reduce the number of samples taken in the central and eastern portions of the site.

Response: Please refer to the response to the cover letter general comment above. It is unclear why additional information is undesirable to RIDEM. One of the specific purposes of this investigation is to better understand the site conditions so that the cost estimates provided in the FS can be refined. Considering RIDEM's past comments on these estimates, it would seem that such information would be welcome.

2. General Comment

The Navy has indicated that due to budgetary considerations the removal action may be conducted in two construction seasons. In the first season the mounds will be removed from the site and the area will be leveled. In the second season the subsurface soils will be removed. If the Navy intends to conduct the removal action in two seasons it is strongly recommended that the proposed soil borings in the mounds be drilled after the mounds are removed. In this manner the Navy can adjust the proposed drilling locations based upon discoveries made during the removal of the mounds. This would affect the following soil boring locations; SB # 406, 411, 412, 415, 416, 417, 418, 422 and 433.

Response: As RIDEM is aware, the borings were already conducted at the stations indicated in the work plan. The borings cited in the comment above were installed through the mounds into the subsurface soils under the mounds as scoped. These borings will be used to help quantify the soils to be removed from the site during both phases of the removal action. Additional borings should not be necessary after the mound removals.

3. General Comment

The current submittal calls for the installation of some soil borings in proximity to historic location of test pits, monitoring wells or other borings installed during the previous investigations. The work plan must stipulate that the lack of contamination in a new boring cannot be used to discount the fact that contamination was observed in an adjacent historical test pit, boring, monitoring well etc. That is, since contamination distribution is heterogeneous in nature, the lack of contamination at one location cannot be used to negate observations or test results from previous sampling efforts.

Response: Data collected during the Predesign investigation will be used in conjunction with data collected previously. PDI data collected and evaluated to date generally supports that provided in the RI.

4. Section 1.0 Introduction

"Analyzing soil samples to determine disposal requirements and restrictions."

The report notes that the proposed sampling effort will be used to determine disposal requirements and restrictions. A sufficient number of samples have been taken to determine general disposal requirements and/or restrictions for planning purposes. Further, the current constituent list is less than that used during the previous investigations and it does not include any different analytes, such as TCLP. Therefore, the predesign sampling effort will be of limited utility for waste disposal. Sampling for waste disposal will be done during the confirmatory sample phase when the waste piles are segregated and shipped out.

Response: The fifth bullet on page 1-2 is in error. While making a determination of the waste disposal characteristics was originally identified as an objective of the effort, it was soon recognized that the material would have to be tested after it was excavated anyway, so this objective was to be removed from the work plan. The problem and resolutions that the investigation addresses are correctly detailed in Section 2.5 of the work plan.

5. Section 3.2.1, Soil Samples Collected from Borings Page 3-2.

"Continuous split spoon samples will be collected from each borings starting at a depth of two feet bgs to the top of bedrock or a maximum depth of 20 feet bgs."

The mounds at the site are of considerable elevation with respect to the adjacent flat areas. Application of the above restriction would limit the investigation of the mounded areas. Therefore, the above must be modified as follows: Continuous split spoon samples in the flat areas of the site will be collected from each borings starting at a depth of two feet bgs to the top of bedrock or a maximum depth of 20 feet bgs. In the mounded areas the elevations of the hills will be taken into considerations so that the borings in the mounds are terminated at approximately the same depth as the rest of the borings at the site, (i.e. if the top of the mound is fifteen feet higher than the surrounding areas the maximum depth of the boring at this location will be thirty five feet.).

Response: Section 2.5.4 states "the maximum target sample depth is determined by the top of bedrock, or 20 feet below the base grade of the site, or the ground elevation below the bottom of the mounds." Thus, the statements in Section 3 regarding ground surface actually refer to the surface of the ground at base elevation (under the mound).

For this project, the mounds are regarded as only mounds, or piles of debris and soil, and not considered the ground surface. For clarity, this understanding could have been carried forward to Section 3.2.1, but the field investigation was correctly conducted with consideration of advancing to 20 feet below the bottom of the mounds, as the comment above requests.

6. Section 3.2.1, Soil Samples Collected from Borings Page 3-2.

"Continuous split spoon samples will be collected from each borings starting at a depth of two feet bgs to the top of bedrock or a maximum depth of 20 feet bgs."

The objective of the investigation is to determine the extent of contamination. If contamination is observed at a particular boring location at the twenty-foot interval, deeper samples will have to be taken. Therefore, the above must be modified as follows: Continuous split spoon samples will be collected from each borings starting at a depth of two feet bgs to the top of bedrock or a proposed depth of 20 feet bgs. If contamination is discovered at the bottom of the boring the drilling will be extended deeper until clean soils are encountered.

Response: The target depth of 20 feet below ground surface was adequate to find the extent of the site-related contaminants. This will be evident in the forthcoming PDI report.

7. Section 3.2.1, Soil Samples Collected from Borings Page 3-2.

The proposal calls for the collection of soil samples at specified intervals. This is acceptable if the borings are homogeneous and there is no evidence of contamination. If contamination zones exist, samples should be preferentially taken from the most contaminated areas and/or from those areas needed to profile the site. As an illustration, if heavily contaminated soil is observed at the 14 -16 foot interval and not at 18-20 foot interval the Navy may wish to sample both intervals, (the dirty and the clean) in order to obtain information concerning contaminant depth. If the Navy acknowledges that the 14-16 foot interval is dirty and will require remediation, the Navy may elect to sample only the 18-20 foot interval to determine if contamination is present at that depth. The report must be modified to reflect these requirements.

Response: Soil samples were taken from predetermined areas in order to profile contaminant distribution at the site, as stated in the comment above. Discussions on how the data is used to direct removal actions can be held after the data is evaluated.

8. Section 3.2.1, Soil Samples Collected from Borings Page 3-2.

The report notes that samples will be analyzed for SVOCs, metals and TPH. This section of the report should clearly state whether the samples will be analyzed for the entire list of SVOCs and metals, or just a subset of these compounds. Further, this section of the report should include a table with the list of compounds for analysis.

Response: Target analytes included TPH, PAHs, and metals provided by the methods cited as indicated in Tables 3-1 and 3-2 within the cited section. COCs and their required detection limits are provided in Table 4-1.

9. Section 3.2.1, Soil Samples Collected from Borings Page 3-2.

The report notes that site samples will be analyzed for TAL metals using standard laboratory measures. Field XRF is a low cost alternative to laboratory analysis. Accordingly the Navy may wish to evaluate the use of XRF to analyze these samples (with ten percent laboratory confirmatory analysis covering both low and high end samples).

Response: XRF was considered for screening soil samples, but rejected as the detection limits are not always accurate at the lower detection range needed for this study.

10. Section 3.2.1, Soil Samples Collected from Borings Table 3-2, Analytical Methods, Sample Preservation and Holding Time Requirements.

The Navy has proposed using EPA 8015 B to test for TPH. Please be advised that both light and heavy oils were dumped at the site. The proposed TPH test method is not capable of detecting the full range of petroleum compounds. Therefore, as has been done at other sites, including sites on the Navy base, two separate TPH test methods, (one for light and the other for heavy products), must be employed at the site.

Response: The method used involved collection and reporting of separate fractions for gasoline range organics (GRO) and diesel range organics (DRO), reporting throughout the spectrum of gasoline range to C-36 hydrocarbons.

11. Section 3.2.1, Soil Samples Collected from Borings Table 3-2, Analytical Methods, Sample Preservation and Holding Time Requirements.

This table lists the preservation methods to be employed on the samples. Please be advised that EPA 5035 is required for lighter end petroleum fraction samples. Please modify the work plan to reflect this requirement.

Response: Method 5035 (a soil preparation method) was followed for the GRO range samples, using en-core samplers, cooled to 4 degrees C. in the field and then extracted at the laboratory within 48 hours of collection.

12. Section 4.3.1, Environmental Samples; Page 4-5.

All of the information obtained from the site will be placed in the Navy's GIS database. In order to avoid confusion it is recommended that the nomenclature for the boring location start at the last boring taken at the site in lieu of the proposed 400 identifier, (i.e. instead of OFFTA-SB-400, use OFFTA-SB-19).

Response: The Navy and their contractors have to consider older data collected by a number of sources to assure that sample numbers are not duplicated. Using series numbers clarifies each effort, and makes large data sets more manageable.

13. Section 4.13, Predesign Investigation Report; Page 4-12.

This section of the work plan must stipulate that in order to provide over sight, the regulatory agencies will be given a schedule of field activities and a tentative start date for the sampling effort. Since it is recognized that start dates and schedules are dynamic, one week notification is required prior to the actual start of field activities and when possible, twenty four hour notification is required for the cancellation of any activities. In addition, at the end of each week the Navy will fax or email a schedule of upcoming activities for the next week. As this procedure has been employed at other sties the Navy may wish to simply adopt the protocols, which have been previously implemented into this work plan. Finally, in a number of instances in the past the prior notification was provided late, due to confusion as to whether the Navy or the Navy's contractor would contact the regulatory agencies. In order to avoid this problem the work plan should clearly state which entity will provide the notification to the regulatory agencies.

Response: The cover letter to the work plan clearly stated that the field effort was anticipated to begin 10 days from the date that RIDEM received the work plan (work plan was delivered to RIDEM office November 7, 2003 and field activities were to commence on November 17, 2003). In this manner, the Navy believes RIDEM was adequately notified.